ABSTRACT

Two or more computers acting as firewalls share network state data to enhance throughput performance. A firewall creates a separate common TCP control block (CCB) for each group of TCP connections through the firewall having common endpoints. The CCB is a shared data structure comprising a single microstate shared across the group of TCP connections. Each such individual TCP connection has a TCP control block, which instead of a microstate, contains a pointer to the appropriate CCB. Preferably, each firewall receives CCBs from its peers and stores them. Each firewall preferably adjusts data traffic passing through it based on the CCBs stored within it. By adjusting traffic to reduce or eliminate congestion, throughput is enhanced.